

Protecting Endangered Species Interim Measures for Use of Pesticides in Santa Barbara County

The federal Endangered Species Act is intended to protect and promote the recovery of animals and plants that are in danger of becoming extinct due to human activities. Under the Act, the U.S. Environmental Protection Agency (U.S. EPA) must ensure that the use of pesticides it registers will not result in harm to the species listed as endangered or threatened by the U.S. Fish and Wildlife Service, or to habitat critical to those species' survival. This program will protect endangered and threatened species from harm due to pesticide use.

The information provided in this bulletin is similar to what U.S. EPA expects to distribute once the Endangered Species Protection Program is in effect. Individuals who use pesticides during this interim period are not legally required to comply with these suggested measures. At the present time, compliance with the requirements specified on the pesticide product labeling will satisfy all legal requirements regarding pesticides and endangered species protection. While these pesticide use conditions do not yet have the force of law, they are being provided now for your use in voluntarily protecting endangered and threatened species.

Your comments are needed regarding the information presented in this publication. Please contact us to let us know whether the information is clear and correct. Also tell us to what extent following the recommended measures would affect your pesticide use program. This information will be considered by U.S. EPA during the final stages of program development.

Please submit comments to:
DPR Pesticide Registration Branch
830 K Street
Sacramento, CA 95814
(916) 324-3881
rmarovich@cdpr.ca.gov
<http://www.cdpr.ca.gov/docs/es/index.htm>



About This Publication

This publication contains a map of the county including a shaded area where pesticide use should be limited to protect listed species. In the Section List, you will find additional information on the individual species that occur in each section, indexed by county, township, range and section.

The Species Descriptions table lists the taxonomic groups for each species. The Active Ingredients tables list certain pesticides and the activity category (mode of action, etc.) of the pesticide and the taxonomic groups they could adversely affect. The use limitations in this bulletin apply only to listed pesticides where the hazard class of the pesticide matches the hazard class (sensitivity of the taxonomic group) of the species that occur in the section where the pesticide will be used. Within a given section, use limitations only apply to sites that are consistent with habitat as noted in the Species Descriptions table. The Use Limitation Codes table indicates which use limitation codes apply to each species. The Use Limitations table translates limitation codes to use limitations.

Does This Information Apply To You?

To determine whether this information applies to your use of a pesticide, review the questions below. The information applies only if you answer "yes" to all three of these questions:

- Do you intend to use pesticides within the shaded area on the map (p 3) that is further detailed in the Section List (p 41)? If so, note the species from the Section List.
- Are any of the ingredients included in your pesticide product named in the Active Ingredients tables (p 8, 15, 19, 22, 25)?
- If so, does the hazard class(es) of the pesticide you intend to use match one or more of the taxonomic groups of the species as shown in the Species Descriptions table (p 32)?

If you answer "yes" to all three questions, you should follow the instructions on "How to Use This Information" (p 2) to help protect listed species.

If you answer "no" to any of the above questions, this bulletin does not apply to you.

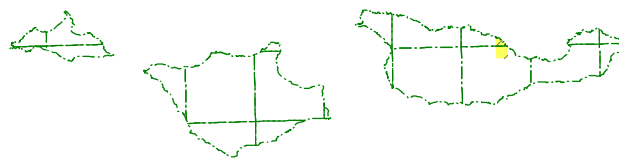
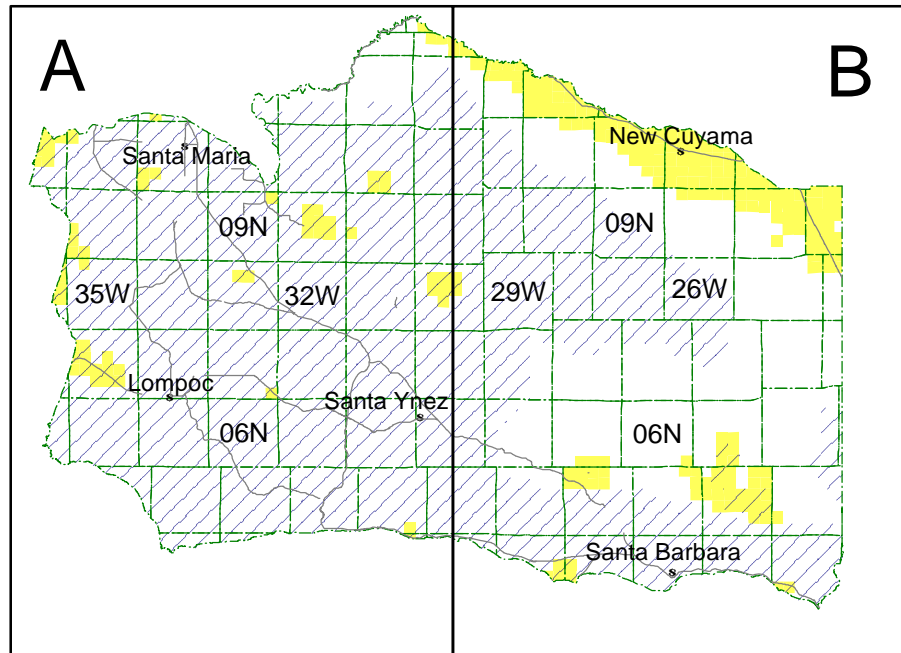


How to Use This Information

See worksheets for each class of pesticide that you intend to use:

<u>Worksheets</u>	<u>Page</u>
Herbicides	6
Insecticides	13
Fungicides	18
Rodenticides - Grain Baits	21
Rodenticides - Fumigants	24

Distribution of Species Addressed in This Bulletin



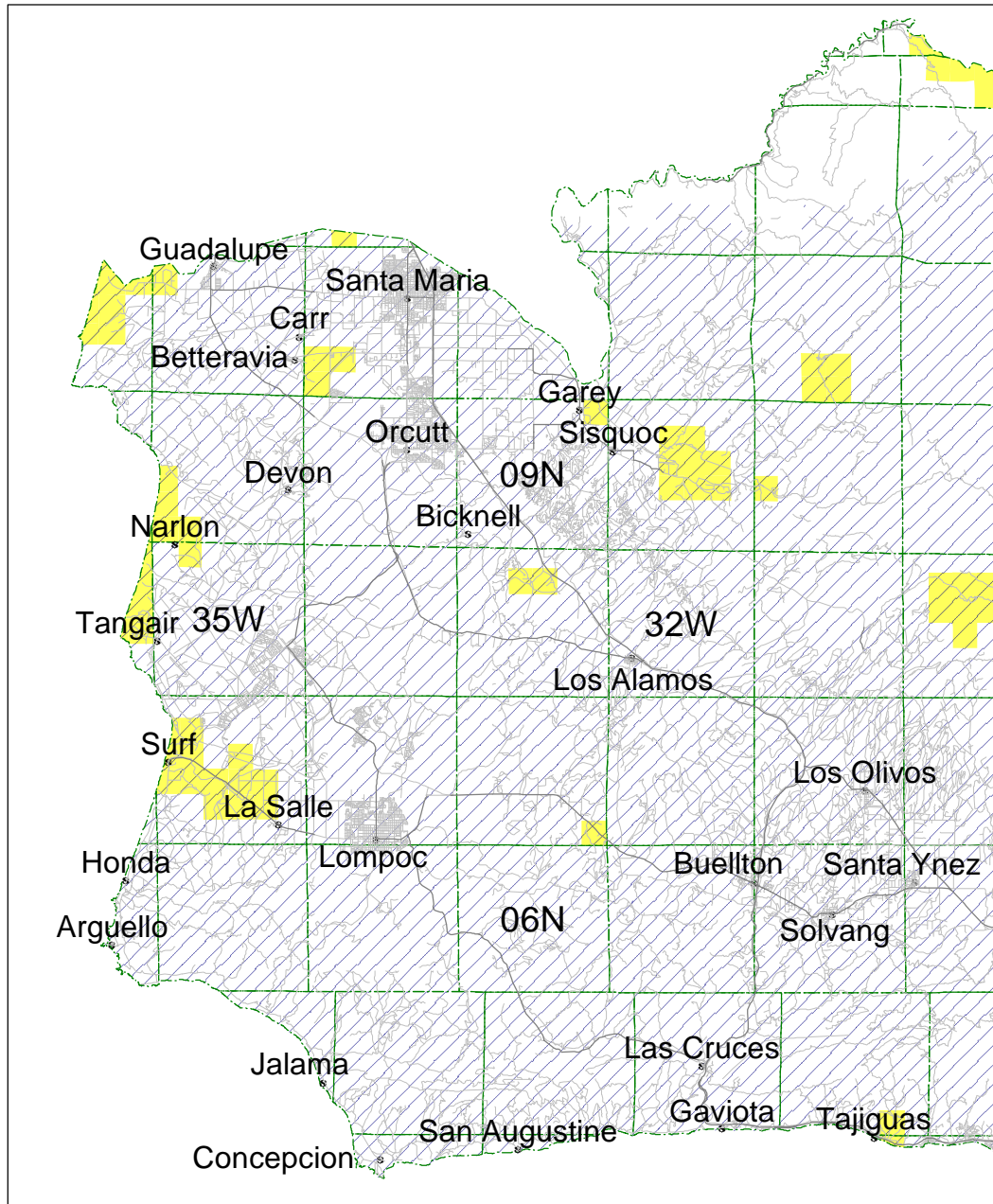
Terrestrial Species



Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Overview Map

Distribution of Species Addressed in This Bulletin



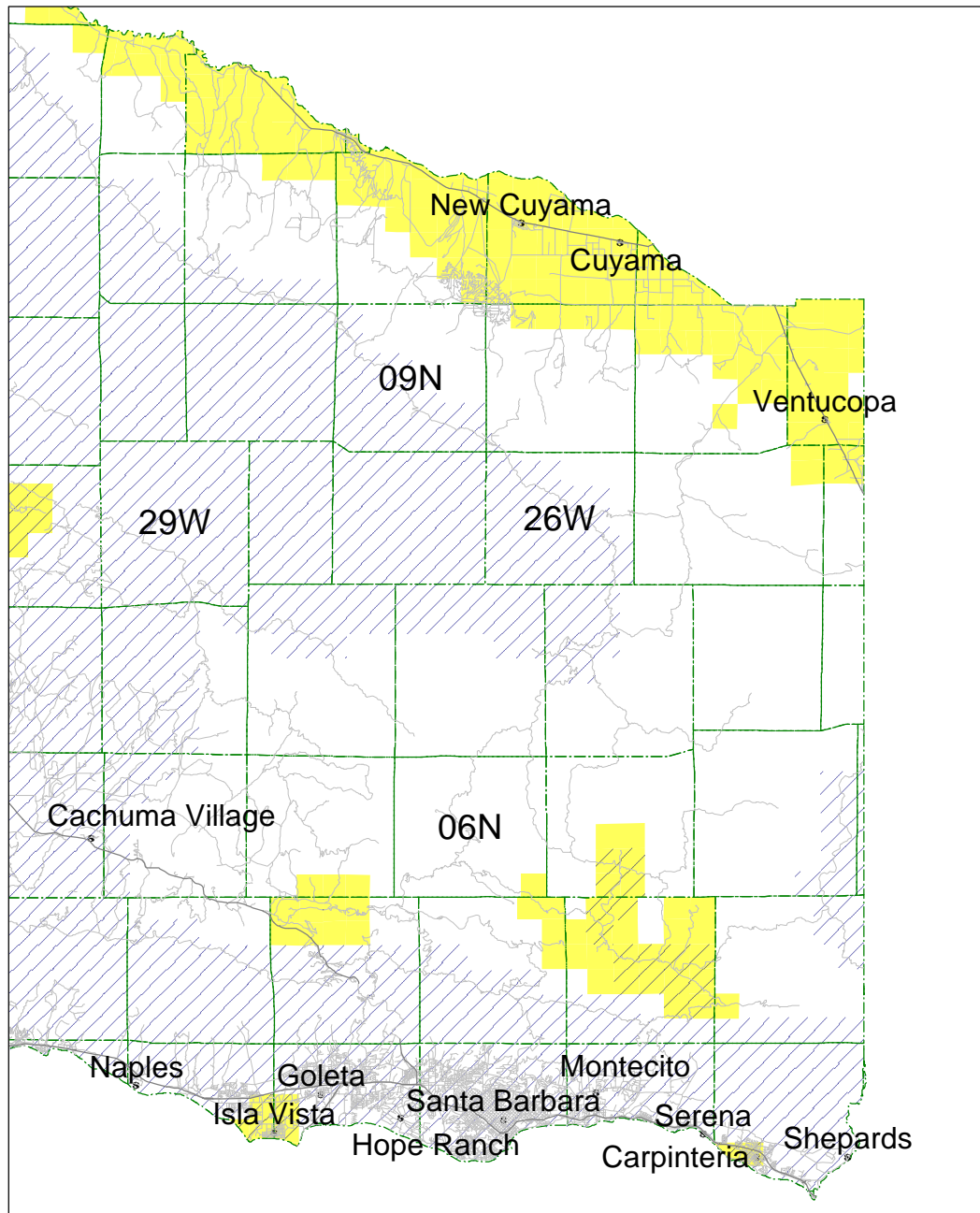
Terrestrial Species



Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map A

Distribution of Species Addressed in This Bulletin



Terrestrial Species



Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map B

Worksheet for Herbicides

For each section where you will apply herbicides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes () No ()
(if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)
2. Is the section listed in the Section List (p 41)? Yes () No ()
(if yes, go on to #3, if no, this bulletin does not apply)
3. Is the active ingredient of the herbicide(s) you intend to use listed in the Active Ingredients table (p 8-11)?
(if yes, go on to #4, if no, this bulletin does not apply) Yes () No ()
4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

herbicide active ingredient(s) (list each)	Hazard Class (check all that apply)			Activity Category (check one)				
	AQ	PD	PM	a	b	c	d	e
_____	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 32) and check all that apply.

AQ	PD	PM
()	()	()

6. Does one or more hazard class(es) of the herbicide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes () No ()
7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

11 ()	15 ()	16 ()	17 ()	19 ()
--------	--------	--------	--------	--------

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 27). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 32) for each species.

Active Ingredients Tables

Active ingredients of pesticides covered by this bulletin are listed in separate tables on the following pages by classification as herbicides, insecticides, fungicides or rodenticides. The active ingredients table for each pesticide class specifies the activity category of each active ingredient and one or more hazard classes that are subsequently used to determine appropriate pesticide use limitations.

Herbicide Exposure Categories

Herbicides are grouped by activity categories (a-e) that broadly define mode of action and use patterns that in turn determine potential routes of exposure to listed species. The activity category of an herbicide is the exposure component that is used with the hazard class of the pesticide and the taxonomic group of the species to define which pesticide use limitations (if any) to apply.

Activity Category	Description
a	Broad spectrum foliar active herbicides with systemic or contact activity and without pre-emergent or residual soil activity.
b	Herbicides with foliar activity on broadleaved plants (dicots) only.
c	Herbicides with foliar activity on grasses (monocots) only.
d	Broad spectrum herbicides with residual soil activity.
e	Broad spectrum, seedling stage, pre-emergent herbicides.

Active Ingredients (Herbicides)

Herbicides

Active Ingredients	Activity Category	Hazard Class		
		Aquatic Animals (AQ)	Plants	
			Dicot (PD)	Monocot* (PM)
2,4-D	b		X	
2,4-D, butoxyethanol ester	b	X	X	
2,4-D, dimethylamine salt	b		X	
2-(2,4-DP), dimethylamine salt	b		X	
4(2,4-DB), dimethylamine salt	b		X	
alachlor	d		X	X
atrazine	d		X	X
benefin	e	X	X	X
bensulfuron methyl	d		X	X
bensulide	d		X	X
bentazon, sodium salt	a		X	X
bromacil	d		X	X
bromoxynil	a	X	X	X
butylate	d		X	X
cacodylic acid	a		X	X
carfentrazone-ethyl	a		X	X
chlorsulfuron	d		X	
chlorthal-dimethyl	e		X	X
clethodim	c			X
clopyralid	b		X	
copper	a	X		
copper ethanolamine complex	a	X		

* and gymnosperms

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
		Aquatic Animals	Plants	
			Dicot	Monocot*
copper sulfate (basic)	a	X		
copper sulfate pentahydrate	a	X		
cyanazine	d		X	X
cycloate	d		X	X
desmedipham	e		X	X
dicamba, dimethylamine salt	b		X	
dichlobenil	d		X	X
diclofop-methyl	c	X		X
difenzoquat methyl sulfate	a			X
diquat dibromide	a		X	X
dithiopyr	d	X	X	X
diuron	d		X	X
endothall, dipotassium salt	d		X	X
endothall, mono [N,N-dimethyl alkylamine] salt	d		X	X
EPTC	d		X	X
ethafluralin	e	X	X	X
ethofumesate	d		X	X
fenoxaprop	c			X
fluazifop-butyl	c			X
glufosinate	a		X	X
halosulfuron	d		X	X
imazethapyr	d		X	X
isoxaben	d		X	X

* and gymnosperms

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
		Aquatic Animals (AQ)	Plants	
			Dicot (PD)	Monocot* (PM)
glyphosate, isopropylamine salt	a		X	X
glyphosate, monoammonium salt	a		X	X
hexazinone	d		X	X
imazapyr	d		X	X
linuron	d		X	X
MCPA, dimethylamine salt	b		X	
MCPP, dimethylamine salt	b		X	
metalochlor	d		X	X
metam-sodium	d	X	X	X
metribuzin	d		X	X
molinate	d		X	X
MSMA	a		X	X
napropamide	d		X	X
nicosulfuron	a		X	X
nonanoic acid	a		X	X
norflurazon	d		X	X
oryzalin	e		X	X
oxadiazon	e	X	X	X
oxyfluorfen	e	X	X	X
paraquat dichloride	a		X	X
pebulate	e		X	X

* and gymnosperms

Active Ingredients (Herbicides)

Herbicides

Active Ingredients	Activity Category	Hazard Class		
		Aquatic Animals (AQ)	Plants	
			Dicot (PD)	Monocot* (PM)
pendimethalin	e	X	X	X
petroleum hydrocarbons	a		X	X
petroleum oil, unclassified	a		X	X
phenmedipham	b		X	
prometon	d		X	X
prometryn	d		X	
pronamide	d		X	X
propanil	a		X	X
pyrazon	d		X	X
pyrithiobac	b		X	
rimsulfuron	d		X	X
sethoxydim	c			X
simazine	d		X	X
sulfometuron, methyl	d		X	X
tebuthiuron	d		X	X
thiazopyr	d		X	X
thiobencarb	a		X	X
triclopyr, butoxyethyl ester	b	X	X	
triclopyr, triethylamine salt	b		X	
trifluralin	e	X	X	X

* and gymnosperms

Use Limitation Codes (Herbicides)

The following table identifies use limitation codes for each combination of hazard class (AQ, PM or PD) and herbicide activity category (a-e). Use the hazard class row(s) that corresponds with both (1) the pesticide (from the Active Ingredients table) and (2) the hazard class (taxonomic group) of the species in the section to be treated (as found in the Species Descriptions table) and the activity category column(s) that corresponds with the herbicide(s) you intend to use. If either (1) the hazard class (taxonomic group) of one or more species does not match at least one of the hazard class(es) of the herbicide you intend to use or (2) if the combination of activity category and hazard class results in a double dash (- -), then no use limitations apply. Note all applicable codes (11-19). These codes are translated in the Use Limitations table (p 27)

Hazard Class	Herbicide Activity Category				
	a	b	c	d	e
AQ	11, 17	11, 17	11, 17	11, 15, 16, 17	11, 17
PM	11, 17	- -	11, 17	11, 16, 17, 19	11
PD	11, 17	11, 17	- -	11, 16, 17, 19	11

Worksheet for Insecticides

For each section where you will apply insecticides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes () No ()
(if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)
2. Is the section listed in the Section List (p 41)? Yes () No ()
(if yes, go on to #3, if no, this bulletin does not apply)
3. Is the active ingredient of the insecticide(s) you intend to use listed in the Active Ingredients table (p 15-16)?
(if yes, go on to #4, if no, this bulletin does not apply) Yes () No ()
4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

insecticide active ingredient(s) (list each)	Hazard Class (check all that apply)				Activity Category
	AQ	AV	IN	PD	
_____	()	()	()	()	i (x)
_____	()	()	()	()	(x)
_____	()	()	()	()	(x)
_____	()	()	()	()	(x)
_____	()	()	()	()	(x)

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 32) and check all that apply.

AQ	AV	IN	PD
()	()	()	()

6. Does one or more toxicity class of the insecticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes () No ()
7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each insecticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

10 ()	15 ()	16 ()	17 ()
--------	--------	--------	--------

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 27).
If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 32) for each species.

Activity Categories of Insecticides

There is currently only one activity category for insecticides.

Activity Category	Description
i	Insecticides applied by any method

Active Ingredients (Insecticides)

Active Ingredients	Activity Category	Hazard Class			
		Aquatic (AQ)	Avian (AV)	Insects (IN)	Plants-Dicot* (PD)
acephate	i			X	X
aldicarb	i	X	X		
amitraz	i	X		X	
avermectin	i	X		X	X
azinphos-methyl	i	X	X	X	X
Bacillus thuringiensis	i			X**	
bendiocarb	i	X	X	X	X
bifenthrin	i	X		X	X
buprofezin	i	X		X	X
carbaryl	i	X		X	X***
carbofuran	i	X	X	X	X
carbophenothion	i	X	X	X	X
chlorfenapyr	i	X		X	X
chlorpyrifos	i	X	X	X	X
cyfluthrin	i	X		X	X
cypermethrin	i	X		X	X
cyromazine `	i			X	X
diazinon	i	X	X	X	X
dicofol	i	X	X	X	X
dicrotophos	i	X	X	X	X
diflubenzuron	i	X	X	X	
disulfoton	i	X	X	X	X
endosulfan	i	X	X	X	X
esfenvalerate	i	X		X	X
ethion	i	X		X	
ethoprop	i	X	X	X	X
fenitrothion	i	X	X	X	X

Insecticides

* Non-granular formulations, only when in bloom, to avoid possible adverse impacts on pollination.

** Different strains of Bacillus thuringiensis are selective for different insects. Most strains target

Lepidopterous pests only. See your county agricultural commissioner for details.

*** Except XLR formulation.

Active Ingredients (Insecticides)

Active Ingredients	Activity Category	Hazard Class			
		Aquatic (AQ)	Avian (AV)	Insects (IN)	Plants-Dicot* (PD)
fenpropathrin	i	X		X	X
fenthion (livestock use)	i	X	X		
fenvalerate	i	X		X	X
fluvalinate	i	X		X	X
fonofos	i	X	X	X	X
imidacloprid	i			X	X
malathion	i	X		X	X
methamidophos	i		X	X	X
methidathion	i	X	X	X	X
methiocarb	i		X		X
methomyl	i	X	X	X	X
methyl parathion	i	X	X	X	X
mevinphos	i	X	X		X
naled	i	X		X	X
oxamyl	i	X	X	X	X
oxydemeton-methyl	i	X	X	X	X
parathion	i	X	X	X	X
permethrin	i	X		X	X
phorate	i	X	X	X	X
phosmet	i	X		X	X
profenphos	i	X		X	X
propargite	i	X		X	
pyrethrin	i	X		X	X
pyriproxyfen	i	X		X	
spinosad	i			X	X
tebufenozide	i	X		X	X
temephos	i	X	X	X	X
terbufos	i	X	X	X	X
thiodicarb (1)	i	X		X	X
tralomethrin (1)	i	X		X	X
trichlorfon (2)	i	X		X	

Insecticides

Use Limitation Codes for Insecticides

The following table identifies use limitation codes for each combination of toxicity class (AQ, AV or IN) and activity category (i). Use the hazard class row that corresponds with the taxonomic group(s) of species in the section to be treated. Note all applicable codes (11-17). The double dash (- -) indicates that no use limitations apply. These codes are translated in the Use Limitations table (p 27).

Hazard Class	Insecticide Activity Category
	i
AQ	10, 15, 16, 17
AV	10, 17
IN	10, 17
PD	10

Worksheet for Fungicides

For each section where you will apply fungicides:

- 1. Is the section inside of the shaded area on the county map (p 3)? Yes () No ()
(if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)
- 2. Is the section listed in the Section List (p 41)? Yes () No ()
(if yes, go on to #3, if no, this bulletin does not apply)
- 3. Is the active ingredient of the fungicide(s) you intend to use listed in the Active Ingredients table (p 19)?
(if yes, go on to #4, if no, this bulletin does not apply) Yes () No ()
- 4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

fungicide active ingredient(s) (list each)	Hazard Class	Activity Category
	AQ	f
	(x)	(x)
	(x)	(x)
	(x)	(x)
	(x)	(x)
	(x)	(x)

- 5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 32) and check all that apply.

AQ
(x)

- 6. Does one or more hazard class of the fungicide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes () No ()
- 7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each fungicide that you intend to use and check all use limitation codes that apply.

Limitation Codes

10 (x) 15 (x) 16 (x) 17 (x)

- 8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 27). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions (p 32) table for each species.

Active Ingredients (Fungicides)

Active Ingredients	Activity Category	Hazard Class
		Aquatic (AQ)
Azoxystrobin	f	X
Benomyl	f	X
Captan	f	X
Carboxin	f	X
Chlorothalonil	f	X
Copper	f	X
Copper Ammonium Carbonate	f	X
Copper Ammonium Complex	f	X
Copper Hydroxide	f	X
Copper Octanoate	f	X
Copper Oxychloride	f	X
Copper Oxychloride Sulfate	f	X
Copper Salts of Fatty and Rosin Acids	f	X
Copper Sulfate (Basic)	f	X
Copper Sulfate (Pentahydrate)	f	X
Dazomet	f	X
Difenoconazole	f	X
Dimethomorph	f	X
Fenbuconazole	f	X
Fludioxonil	f	X
Mancozeb	f	X
Maneb	f	X
Manganese Sulfate	f	X
Oxythioquinox	f	X
PCNB	f	X
Piperalin	f	X
Propiconazole	f	X
Tebuconazole	f	X
Thiabendazole	f	X
Thiram	f	X
Triflumizole	f	X
Ziram	f	X
Zineb	f	X

Use Limitation Codes for Fungicides

The following table identifies use limitation codes for the hazard class (AQ) and fungicide activity category (f). Note all applicable codes (10-17). These codes are translated on page 27.

Hazard Class	Fungicide Activity Category
	f
AQ	10, 15, 16, 17

Worksheet for Grain Bait Rodenticides

For each section where you will apply grain bait rodenticides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes () No ()
(if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)
2. Is the section listed in the Section List (p 41)? Yes () No ()
(if yes, go on to #3, if no, this bulletin does not apply)
3. Is the active ingredient of the pesticide(s) you intend to use listed in the Active Ingredients table (p 22)? Yes () No ()
(if yes, go on to #4, if no, this bulletin does not apply)
4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

Rodenticide active ingredient(s) (list each)	Hazard Class							Activity Category		
	BB	CB	GB	HM	KF	KR	LH	g	h	k
_____	()	()	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()	()	()
_____	()	()	()	()	()	()	()	()	()	()

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 32) and check all that apply.

BB	CB	GB	HM	KF	KR	LH
()	()	()	()	()	()	()

6. Does one or more hazard class of the pesticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes () No ()
7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

1A ()	1B ()	1C ()	1D ()	2 ()	3 ()
4 ()	7 ()	8 ()	33 ()	34 ()	

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 27). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (page 32) for each species.

Active Ingredients (Rodenticides)

Active Ingredients	Activity Category	Hazard Class						
		Bait Box (BB)	Carni-vorous Birds (CB)	Grani-vorous Birds (GB)	Salt Marsh Harvest Mouse (HM)	Kit Fox (KF)	Kangaroo Rats (KR)	Very Limited Habitat (LH)
Brodifacoum	k	X	X	X	X	X	X	X
Bromadiolone	k	X	X	X	X	X	X	X
Bromethalin	k	X	X	X	X	X	X	X
Chlorophacinone	g	X	X	X	X	X	X	X
Difenacoum	k	X	X	X	X	X	X	X
Difethialone	k	X	X	X	X	X	X	X
Diphacinone	g	X	X	X	X	X	X	X
Pival	k	X	X	X	X	X	X	X
Vitamin D3	k	X	X	X	X	X	X	X
Warfarin	k	X	X	X	X	X	X	X
Zinc Phosphide	h	X	X	X	X	X	X	X

Activity Categories of Grain Bait Rodenticides

Activity Category	Description
g	Field use chronic toxicant grain bait
h	Field use acute toxicant grain bait
k	Structural use rodenticide

Use Limitation Codes for Rodenticide Grain Baits

The following table identifies use limitation codes for each combination of hazard class (BB, CB, etc.) and rodenticide activity category (g-k). Use the row(s) that corresponds with the hazard class (taxonomic group) of the species in the section to be treated and the rodenticide activity column(s) that corresponds with the rodenticide(s) you intend to use. Note all applicable codes (1-34). The double dash (- -) indicates that no use limitations apply. These codes are translated in the Use Limitations table (p 27)

Hazard Class	Rodenticide Grain Bait Activity Category		
	g	h	k
BB	7	7	7
CB	1D	- -	7
GB	1B, 1C	1B, 1C	7
HM	7 or 34	7 or 34	7
KF	1, 2, 3, 4	3	7
KR	8	8	7
LH	33	33	33

Worksheet for Fumigant Rodenticides

For each section where you will apply fumigant rodenticides:

1. Is the section inside of the shaded area on the county map (p 3)?
(if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

Yes () No ()
2. Is the section listed in the Section List (p 41)?
(if yes, go on to #3, if no, this bulletin does not apply)

Yes () No ()
3. Is the active ingredient of the pesticide(s) you intend to use listed in the Active Ingredients table (p 25)?
(if yes, go on to #4, if no, this bulletin does not apply)

Yes () No ()
4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

Rodenticide active ingredient(s) (list each)	Hazard Class					Activity Category
	S1	S2	LH	WW	FS	j
	(x)	(x)	(x)	(x)	(x)	(x)
	(x)	(x)	(x)	(x)	(x)	(x)
	(x)	(x)	(x)	(x)	(x)	(x)
	(x)	(x)	(x)	(x)	(x)	(x)
	(x)	(x)	(x)	(x)	(x)	(x)

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 32) and check all that apply.

S1	S2	LH	WW	FS
()	()	()	()	()

6. Does one or more hazard class of the pesticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply)

Yes () No ()
7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes				
5 ()	30 ()	31 ()	32 ()	33 ()

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 27).
If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 32) for each species.

Active Ingredients (Rodenticides - Burrow Fumigants)

Active Ingredients	Activity Category	Hazard Class				
		Seasonal Limitation 1 (S1)	Seasonal Limitation 2 (S2)	Limited Habitat (LH)	Waterways (WW)	Fossorial (Burrowing) Species (FS)
Acrolein	j	X	X	X	X	X
Aluminum phosphide	j	X	X	X	X	X
Magnesium phosphide	j	X	X	X	X	X
Sodium Nitrate	j	X	X	X	X	X
Potassium Nitrate	j	X	X	X	X	X

Activity Categories of Burrow Fumigant Rodenticides

Activity Category	Description
j	Burrow Fumigants

Use Limitation Codes for Fumigant Rodenticides

The following table identifies use limitation codes for each combination of hazard class (S1, S2, etc.) and fumigant rodenticide activity category (j). Use the hazard class row(s) that corresponds with the hazard class of the species (taxonomic group) in the section to be treated and the herbicide activity column(s) that corresponds with the fumigant(s) you intend to use. Note all applicable codes (5-32). These codes are translated in the Use Limitations table (p 27).

Hazard Class	Fumigant Rodenticide Activity Category
	j
S1	31, 5
S2	32, 5
LH	33
WW	30
FS	5

Use Limitations

1A	<p>Bait station applications: <i>Formulation:</i> The active ingredient shall not exceed 0.005% in the formulated bait.</p>
1B	<p>Bait Station Design and Use: Bait stations shall be designed with an opening that prevents access to non-target species (not to exceed 3") and controls bait spillage by feeding rodents. See your county agricultural commissioner for recommended designs and suggestions to retrofit existing stations. Bait stations shall be secured (e.g. staked) upright to prevent tipping and access by non-target animals. Bait stations shall not be filled beyond design capacity and in no case shall bait stations be filled with more than 10 lbs of bait.</p>
1C	<p>Station Monitoring: While treated baits are in use, bait stations shall be inspected for spillage, evidence of disturbance by non-target animals, excess moisture from irrigation systems, etc. Problems shall be corrected before baiting is resumed. Any spilled baits shall be promptly cleaned up (scattering limited quantities of spilled bait in non-crop areas is acceptable if allowed by labeling). Bait stations shall be replenished with treated baits as needed to provide continuous exposure. After treated baits are accepted, as evidenced by consumption of baits, depletion of bait in the bait station shall be inspected at least weekly for depletion of bait and refilled until feeding ceases. Treated baits shall be promptly removed (or bait stations shall be sealed) from all stations after feeding has ceased. If subsequent baiting is needed, a two week period without use of treated baits shall be observed before baiting is resumed. This is to keep the period when treated bait is exposed to a minimum without jeopardizing good pest control.</p>
1D	<p>Carcass Survey and Disposal: Carcass survey and disposal shall be performed in the treated area beginning on the third day following the initial exposure of toxic baits. Any exposed carcasses shall be disposed of (e.g., completely buried) in a manner inaccessible to wildlife. Carcass surveys shall continue for at least 5 days after toxic baiting has ceased and thereafter until no more carcasses are found. Carcasses should be handled with care to avoid contact with parasites such as fleas.</p>
1E	<p>Pre-baiting (optional): Pre-baiting of bait stations with non-toxic (untreated) grains such as oats, oat groats or barley is optional, but may reduce the time period for carcass surveys. Pre-baiting will acclimate the pest species to feed in bait stations and should be continued until most of the target population is feeding from the stations. The period of toxic bait exposure may be shortened as will the period when pest carcasses may be exposed. The untreated grain need not be the same as the treated grain, but milo or cracked corn should be strictly avoided due to their attractiveness to birds.</p>

Use Limitations

2A	<p>Broadcast (mechanical) and spot (hand) applications</p> <p><i>Formulation:</i> The active ingredient shall not exceed 0.01% in the formulated bait.</p>
2B	<p><i>Test Baiting/Bait Acceptance:</i> Prior to the main application of toxic baits by spot or broadcast method, a small amount of the bait shall be applied to determine bait acceptance. Test baits shall be broadcast by the same method that will be used for control baiting.</p>
2C	<p><i>Use of Treated Baits:</i> Use of treated baits shall begin only when bait acceptance is confirmed by consumption of test baits. Piling of baits shall be avoided. No additional applications shall be made whenever significant quantities of previously applied bait remain. Do not place baits directly into burrows. Do not exceed label application rates.</p> <p>Spot Baiting - Scatter a handful of bait (about 10 handfulls per pound) evenly over 40 to 50 square feet near active burrows or runways. Repeat every other day until feeding ceases.</p> <p>Mechanical Spreader - Apply at the rate of 10 pounds per swath acre through infested area. Follow with a second application in 2 to 3 days.</p>
2D	<p><i>Carcass Survey and Disposal:</i> See Limitation Code 1D.</p>
3	<p>Use of pelletized formulations for control of ground squirrels is prohibited, except in bait stations as described in Limitation Code 1 (A, B, C, E).</p>
4	<p>Jackrabbits may be controlled by using self-dispensing bait stations provided that:</p> <ul style="list-style-type: none"> Bait acceptance is first determined. Carcasses are removed and stations are monitored as described in Limitation Codes 1C and 1D respectively. Baiting ceases when feeding stops. Baits are placed only where jackrabbits are active. Use of pelletized baits is prohibited.

Use Limitations

<p>5</p>	<p>Use shall be supervised by a person (wildlife biologist, county agricultural commissioner, university extension advisor, state or federal official or others) who is trained to distinguish dens and burrows of target species from those of non-target species. Use shall occur only in the active burrows of target species. The person responsible for supervision shall be aware of the conditions at the site of application and be available to direct and control the manner in which applications are made (per Section 6406 of Title 3, California Code of Regulations). Contact your county agricultural commissioner for information on training.</p>
<p>7</p>	<p>For commensal rodent control, outdoor use must be in tamper resistant bait boxes placed in areas inaccessible to wildlife.</p>
<p>8</p>	<p>Use is prohibited EXCEPT under any ONE of the following conditions (in all cases where toxic baits are applied, any spilled baits shall be immediately removed or buried to prevent exposure to non-target species):</p> <p>For commensal rodent control, outdoor use must be in tamper resistant bait boxes placed in areas inaccessible to wildlife.</p> <p>An approved bait station (see your county agricultural commissioner for approved designs) is used that is fitted with an entrance that provides selective access to pest species but does not allow access to kangaroo rats, OR</p> <p>Bait is placed only in bait stations that are elevated to preclude exposure to kangaroo rats, and designed to prevent spillage by rodents feeding (see your county agricultural commissioner for specifications), OR</p> <p>Baits are placed in bait stations during daylight hours only and are removed (or entrances are closed) by dusk each day, OR</p> <p>Broadcast application of baits is allowed in fields under active cultivation with the maintenance of a 10 yard wide border of untreated crops where fields are adjacent to areas of natural vegetation. For purposes of this provision, fields under active cultivation means fields that have been tilled within the last one year or that such fields are irrigated by furrow, flood or overlapping sprinkler method.</p>
<p>10</p>	<p>Do not use in currently occupied habitat (see Species Descriptions table for possible exceptions).</p>

Use Limitations

Code	Limitation
11	Do not use in currently occupied habitat except: (1) as specified in Habitat Descriptors, (2) in organized habitat recovery programs, or (3) for selective control of invasive exotic plants.
15	Provide a 20 foot minimum strip of vegetation (on which pesticides should not be applied) along rivers, creeks, streams, wetlands, vernal pools and stock ponds or on the downhill side of fields where run-off could occur. Prepare land around fields to contain run-off by proper leveling, etc. Contain as much water "on-site" as possible. The planting of legumes, or other cover crops for several rows adjacent to off-target water sites is recommended. Mix pesticides in areas not prone to run-off such as concrete mixing/loading pads, disked soil in flat terrain or graveled mix pads, or use a suitable method to contain spills and/or rinsate. Properly empty and triple-rinse pesticide containers at time of use.
16	Conduct irrigations efficiently to prevent excessive loss of irrigation waters through run-off. Schedule irrigations and pesticide applications to maximize the interval of time between the pesticide application and the first subsequent irrigation. Allow at least 24 hours between application of pesticides listed in this bulletin and any irrigation that results in surface run-off into natural waters. Time applications to allow sprays to dry prior to rain or sprinkler irrigations. Do not make aerial applications while irrigation water is on the field unless surface run-off is contained for 72 hours following the application.
17	For sprayable or dust formulations: when the air is calm or moving away from habitat, commence applications on the side nearest the habitat and proceed away from the habitat. When air currents are moving toward habitat, do not make applications within 200 yards by air or 40 yards by ground upwind from occupied habitat. The county agricultural commissioner may reduce or waive buffer zones following a site inspection, if there is an adequate hedgerow, windbreak, riparian corridor or other physical barrier that substantially reduces the probability of drift.
19	Do not apply within 30 yards upslope of habitat unless a suitable method is used to contain or divert runoff waters.

Use Limitations

30	Use is prohibited within 500 feet of water courses at any time, EXCEPT a) in cultivated areas
31	Use is prohibited from October 1 through April 30, EXCEPT: a) in cultivated areas, or b) on the water side of water supply channels
32	Use is prohibited from July 1 through February 28, EXCEPT: a) in cultivated areas, or b) on the water side of water supply channels.
33	Use is prohibited EXCEPT with a prior site evaluation by the county agricultural commissioner in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
34	For commensal rodent control, outdoor use near salt marshes is limited to sites that are separated by at least 10 yards of barren (or clean cultivated) ground from pickleweed habitat or from the inland side of the levee. This buffer strip should be above the high tide line.

Species Descriptions

ARROYO TOAD



Photo: Bill Palmer

Scientific Name: *BUFO MICROSCAPHUS CALIFORNICUS*

Federal Status: Endangered

Species Description:

A small (2 to 3 inches), light greenish gray or tan toad with warty skin and dark spots. A light-colored stripe crosses the head and eyelids, and a light area usually occurs on each sacral hump and in the middle of the back.

Habitat Description:

RIVERS WITH SANDY BANKS, WILLOWS, COTTONWOODS, AND SYCAMORES; LOOSE, GRAVELLY AREAS OF STREAMS IN DRIER PARTS OF RANGE. SEMI-ARID REGIONS NEAR WASHES OR INTERMITTENT STREAMS, INCLUDING VALLEY-FOOTHILL AND DESERT RIPARIAN, DESERT WASH, ETC.

Hazard Class:

AQ, FS

BLUNT-NOSED LEOPARD LIZARD



Photo: B. "Moose" Peterson/WRP

Scientific Name: *GAMBELIA SILA*

Federal Status: Endangered

Species Description:

A relatively large lizard (to 4.5 inches from snout to vent) with a long, regenerative tail. It is multicolored with a striping pattern on its back, which breaks into spots as the lizard grows.

Habitat Description:

SEEKCOVER IN MAMMAL BURROWS, UNDER SHRUBS OR STRUCTURES SUCH AS FENCE POSTS; THEY DO NOT EXCAVATE THEIR OWN BURROWS. RESIDENT OF SPARSELY VEGETATED ALKALI AND DESERT SCRUB HABITATS, IN AREAS OF LOW TOPOGRAPHIC RELIEF.

Hazard Class:

FS

Species Descriptions

CALIFORNIA JEWEL-FLOWER



Photo: B. "Moose" Peterson/WRP

Scientific Name: *CAULANTHUS CALIFORNICUS*

Federal Status: Endangered

Species Description:

Annual to 1.5 feet with much branching, buds maroon turning translucent white, appearing Feb-March continuing until May depending on moisture.

Habitat Description:

HISTORICAL FROM VARIOUS VALLEY HABITATS IN BOTH CENTRAL V. AND CARRIZO PLAIN. 65-900M. CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON JUNIPER WOODLAND.

Hazard Class:

PD

CALIFORNIA LEAST TERN



Photo: B. "Moose" Peterson/WRP

Scientific Name: *STERNA ANTILLARUM BROWNI (NESTING COLONY)*

Federal Status: Endangered

Species Description:

A migratory seabird present from April to September, nesting along expansive stretches of shoreline, feeds on small fish near inshore estuaries, river mouths and shallows.

Habitat Description:

COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS. NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA.

Hazard Class:

AQ, AV

Species Descriptions

CALIFORNIA RED-LEGGED FROG



Photo: John Brode, CDFG

Scientific Name: *RANA AURORA DRAYTONII*

Federal Status: Threatened

Species Description:

Up to 5 in. long, undersides of adults largely red; backs have black flecks and blotches, on a brown, gray, olive, or reddish background color; tadpoles range from 0.6 to 3.1 long, are dark brown and yellow with darker spots.

Habitat Description:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT. LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Hazard Class:

AQ, FS

CONTRA COSTA GOLDFIELDS

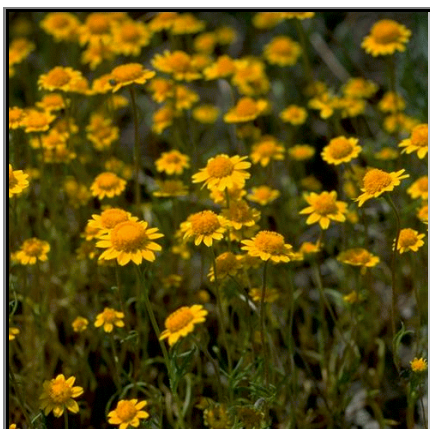


Photo: Brousseau Collection

Scientific Name: *LASTHENIA CONJUGENS*

Federal Status: Endangered

Species Description:

A showy spring annual that grows to 12 inches tall with leaves opposite, light green, and usually have a feather-like arrangement with narrow clefts extending more than halfway toward the stem; flowers in terminal yellow heads from March to June.

Habitat Description:

VERNAL POOLS, SWALES, LOW DEPRESSIONS, IN OPEN GRASSY AREAS. 1-445M. VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS, CISMONTANE WOODLAND. EXTIRPATED FROM MOST OF ITS RANGE; EXTREM. ENDANGERED.

Hazard Class:

PD

Species Descriptions

GIANT KANGAROO RAT



Photo: B. "Moose" Peterson/WRP

Scientific Name: *DIPODOMYS INGENS*

Federal Status: Endangered

Species Description:

A nocturnal rodent, largest of the genus, measuring up to 13 inches from nose to end of tail.

Habitat Description:

NEED LEVEL TERRAIN & SANDY LOAM SOILS FOR BURROWING. ANNUAL GRASSLANDS ON THE WESTERN SIDE OF THE SAN JOAQUIN VALLEY, MARGINAL HABITAT IN ALKALI SCRUB.

Hazard Class:

FS, KR

LA GRACIOSA THISTLE



Photo: Brousseau Collection

Cirsium sp.

Scientific Name: *CIRSIIUM LONCHOLEPIS*

Federal Status: Proposed Endangered

Species Description:

A short-lived (1-2 yr), spreading, mound-like or erect, often fleshy, spiny thistle from 4 to 40 in. high, leaves wavy-margined, 4 to 12 in. long with spiny petioles, terminal flower heads 0.8 to 1.6 in wide, white with purple anthers.

Habitat Description:

LAKE EDGES, RIVERBANKS, OTHER WETLANDS; OFTEN IN DUNE AREAS. 5-185M. COASTAL DUNES, BRACKISH MARSHES, RIPARIAN SCRUB.

Hazard Class:

PD

Species Descriptions

LEAST BELL'S VIREO



Photo: B. "Moose" Peterson

Scientific Name: *VIREO BELLII PUSILLUS (NESTING)*

Federal Status: Endangered

Species Description:

A small migratory insectivorous bird, gray above, white-gray beneath, faint white eyebrow and wingbars, white border beneath eye (lower half of eye ring), dark eyeline and eye, thick bill with hooked upper mandible.

Habitat Description:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE. SUMMER RESIDENT OF SOUTHERN CALIF. INHABITS LOW RIPARIAN GROWTH IN VIC OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Hazard Class:

AV

LIGHT-FOOTED CLAPPER RAIL



Photo: B. "Moose" Peterson

Scientific Name: *RALLUS LONGIROSTRIS LEVIPES*

Federal Status: Endangered

Species Description:

A solitary ground nesting bird up to 19 inches in length, weighing up to 14 ounces. Both sexes with grayish brown to cinnamon brown plumage, darker dorsally than ventrally. Flanks are barred white, dusky, and black.

Habitat Description:

REQUIRE DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS. FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION.

Hazard Class:

AQ, AV

Species Descriptions

SAN JOAQUIN KIT FOX



Photo: Bernard Peyton

Scientific Name: *VULPES MACROTIS MUTICA*

Federal Status: Endangered

Species Description:

Large ears, slender body to 20 in. long and 12 in. shoulder height, 12" bushy cylindrical tail tapering toward the tip, average weight 4.6 to 5.0 pounds, light buff gray pelage on back, white underneath, black tipped tail.

Habitat Description:

NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE. ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Hazard Class:

FS, KF

SAN JOAQUIN WOOLLYTHREADS



Photo: B. "Moose" Peterson

Scientific Name: *LEMBERTIA CONGDONII*

Federal Status: Endangered

Species Description:

A small, inconspicuous plant with 3" trailing stems, 1-1/2" long and 1/4" wide leaves with wavy edges and covered with soft, white woolly hairs, tiny yellow flowers in February or March.

Habitat Description:

ALKALINE OR LOAMY PLAINS; SANDY SOILS, OFTEN WITH GRASSES AND WITHIN CHENOPOD SCRUB. 55-835M. CHENOPOD SCRUB AND VALLEY AND FOOTHILL GRASSLAND. ENDEMIC TO SAN JOAQUIN VALLEY.

Hazard Class:

PD

Species Descriptions

SOUTHERN STEELHEAD



Photo: San Diego Trout

Scientific Name: *ONCORHYNCHUS MYKISS IRIDEUS*

Federal Status: Endangered

Species Description:

A genetically distinct and evolutionarily significant anadromous or freshwater fish related to rainbow and cutthroat trout.

Habitat Description:

SOUTHERN STEELHEAD LIKELY HAVE GREATER PHYSIOLOGICAL TOLERANCES TO WARMER WATER & MORE VARIABLE CONDITIONS. SPAWN IN COOL, CLEAR, WELL-OXYGENATED STREAMS. HIGHER-ELEVATION HEADWATERS ARE PRIMARY SPAWNING & REARING AREAS.

Hazard Class:

AQ

STEELHEAD TROUT (SC-ESU)



Photo: NMFS

Scientific Name: *ONCHORHYNCHUS MYKISS*

Federal Status: Endangered

Species Description:

A genetically distinct and evolutionarily significant anadromous or freshwater fish related to rainbow and cutthroat trout.

Habitat Description:

COASTAL STREAMS

Hazard Class:

AQ

Species Descriptions

TIDEWATER GOBY



Photo: B. "Moose" Peterson/WRP

Scientific Name: *EUCYCLOGOBIUS NEWBERRYI*

Federal Status: Endangered

Species Description:

A brackish water fish, rarely exceeding 2 inches in length, semitranslucent, gray to dark olive elongated body with dusky fins edged in cream, yellow or pale orange.

Habitat Description:

FOUND IN SHALLOW LAGOONS AND LOWER STREAM REACHES, THEY NEED FAIRLY STILL BUT NOT STAGNANT WATER & HIGH OXYGEN LEVELS. BRACKISH WATER HABITATS ALONG THE CALIF COAST FROM AGUA HEDIONDA LAGOON, SAN DIEGO CO. TO THE MOUTH OF THE SMITH RIVER.

Hazard Class:

AQ

UNARMORED THREESPINE STICKLEBACK



Photo: B. "Moose" Peterson/WRP

Scientific Name: *GASTEROSTEUS ACULEATUS WILLIAMSONI*

Federal Status: Endangered

Species Description:

A small, spindle-shaped fish with three angular spines along its back, and skin rather than scales, to 2-1/3 inches long, typically drab-olive color changes to pale blue and scarlet in the males.

Habitat Description:

COOL (<24 C), CLEAR WATER WITH ABUNDANT VEGETATION. WEEDY POOLS, BACKWATERS, AND AMONG EMERGENT VEGETATION AT THE STREAM EDGE IN SMALL SOUTHERN CALIFORNIA STREAMS.

Hazard Class:

AQ

Species Descriptions

WESTERN SNOWY PLOVER



Photo: Don Baccus

Scientific Name: *CHARADRIUS ALEXANDRINUS NIVOSUS (NESTING)*

Federal Status: Threatened

Species Description:

A shore bird with compact body, short neck, large eyes, dark legs and beak, dark partial neckband, males with black forehead and breast markings, females with dark brown markings. Calls include a low pitched "krut" and "ku-wheet."

Habitat Description:

REQUIRES SANDY, GRAVELLY OR FRIABLE SOIL SUBSTRATE FOR NESTING. SANDY BEACHES ON MARINE AND ESTUARINE SHORES, ALSO SALT POND LEVEES AND THE SHORES OF LARGE ALKALI LAKES.

Hazard Class:

AV

Section List - Santa Barbara County

Sections	Species
01S27W: S34	California Red-legged Frog
02S27W: S3	California Red-legged Frog
03N25W: S2-3	Steelhead Trout (SC-ESU)
04N24W: S6-7	Steelhead Trout (SC-ESU)
04N25W: S1-18	Steelhead Trout (SC-ESU)
04N25W: S19-20	Steelhead Trout (SC-ESU), Tidewater Goby
04N25W: S21-27	Steelhead Trout (SC-ESU)
04N25W: S28	Steelhead Trout (SC-ESU), Tidewater Goby
04N25W: S29-30	Light-footed Clapper Rail, Steelhead Trout (SC-ESU), Tidewater Goby
04N25W: S32-33	Steelhead Trout (SC-ESU), Tidewater Goby
04N25W: S34-35	Steelhead Trout (SC-ESU)
04N26W: S1-23	Steelhead Trout (SC-ESU)
04N26W: S24-25	Steelhead Trout (SC-ESU), Tidewater Goby
04N27W: S1-12	Steelhead Trout (SC-ESU)
04N27W: S13-14	Steelhead Trout (SC-ESU), Tidewater Goby
04N27W: S15-18	Steelhead Trout (SC-ESU)
04N27W: S19-20	Steelhead Trout (SC-ESU), Tidewater Goby
04N27W: S21	Steelhead Trout (SC-ESU)
04N27W: S22-24	Steelhead Trout (SC-ESU), Tidewater Goby
04N27W: S27-28	Steelhead Trout (SC-ESU)
04N27W: S29-30	Steelhead Trout (SC-ESU), Tidewater Goby
04N28W: S1-17	Steelhead Trout (SC-ESU)
04N28W: S18-19	Contra Costa Goldfields, Steelhead Trout (SC-ESU)
04N28W: S20-24	Steelhead Trout (SC-ESU)
04N28W: S30	Contra Costa Goldfields, Steelhead Trout (SC-ESU)
04N29W: S1-2	Steelhead Trout (SC-ESU)
04N29W: S12	Steelhead Trout (SC-ESU)
04N29W: S13	Contra Costa Goldfields, Steelhead Trout (SC-ESU), Tidewater Goby
04N29W: S14	Steelhead Trout (SC-ESU)
04N29W: S15-16	Steelhead Trout (SC-ESU), Tidewater Goby
04N29W: S18	Steelhead Trout (SC-ESU)
04N29W: S23-24	Contra Costa Goldfields, Steelhead Trout (SC-ESU), Tidewater Goby
04N29W: S3-4	Steelhead Trout (SC-ESU), Tidewater Goby
04N29W: S5-8	Steelhead Trout (SC-ESU)
04N29W: S9-11	Steelhead Trout (SC-ESU), Tidewater Goby
04N30W: S1-5	Steelhead Trout (SC-ESU)
04N30W: S11-12	Steelhead Trout (SC-ESU)
04N30W: S6	Steelhead Trout (SC-ESU), Tidewater Goby

Section List - Santa Barbara County

Sections	Species
04N31W: S1	Steelhead Trout (SC-ESU)
04N31W: S2	California Red-legged Frog, Steelhead Trout (SC-ESU)
04N31W: S3	Steelhead Trout (SC-ESU)
04N33W: S2	Steelhead Trout (SC-ESU), Tidewater Goby
04N33W: S3	Steelhead Trout (SC-ESU)
04N33W: S4-5	Steelhead Trout (SC-ESU), Tidewater Goby
04N33W: S6	Steelhead Trout (SC-ESU)
04N34W: S1	Steelhead Trout (SC-ESU)
04N34W: S2	Steelhead Trout (SC-ESU), Tidewater Goby
04N34W: S3-10	Steelhead Trout (SC-ESU)
05N25W: S1-2,11-13	Steelhead Trout (SC-ESU)
05N25W: S30	Least Bell's Vireo
05N25W: S31-36	Steelhead Trout (SC-ESU)
05N26W: S1-2	Least Bell's Vireo
05N26W: S13-14	Arroyo Toad, Least Bell's Vireo
05N26W: S15-16	Arroyo Toad
05N26W: S17-18,20	Least Bell's Vireo
05N26W: S21-26	Arroyo Toad
05N26W: S28-36	Steelhead Trout (SC-ESU)
05N26W: S4-5	Arroyo Toad, Least Bell's Vireo
05N26W: S7	Least Bell's Vireo
05N26W: S8	Arroyo Toad, Least Bell's Vireo
05N26W: S9,11-12	Least Bell's Vireo
05N27W: S1-2,12-13	Least Bell's Vireo
05N27W: S17-23,25-36	Steelhead Trout (SC-ESU)
05N28W: S13-36	Steelhead Trout (SC-ESU)
05N28W: S3-10	Least Bell's Vireo
05N29W: S33-34	Steelhead Trout (SC-ESU), Tidewater Goby
05N29W: S35-36	Steelhead Trout (SC-ESU)
05N29W: S7-9,13-32	Steelhead Trout (SC-ESU)
05N30W: S1-36	Steelhead Trout (SC-ESU)
05N31W: S1-3	Steelhead Trout (SC-ESU)
05N31W: S27	Steelhead Trout (SC-ESU), Tidewater Goby
05N31W: S28	Steelhead Trout (SC-ESU)
05N31W: S29	Steelhead Trout (SC-ESU), Tidewater Goby
05N31W: S30-31	Steelhead Trout (SC-ESU)
05N31W: S32	Steelhead Trout (SC-ESU), Tidewater Goby
05N31W: S33	Steelhead Trout (SC-ESU)

Section List - Santa Barbara County

Sections	Species
05N31W: S34	Steelhead Trout (SC-ESU), Tidewater Goby
05N31W: S35	California Red-legged Frog, Steelhead Trout (SC-ESU)
05N31W: S36	Steelhead Trout (SC-ESU)
05N31W: S4-5	Southern Steelhead, Steelhead Trout (SC-ESU)
05N31W: S6-26	Steelhead Trout (SC-ESU)
05N32W: S1-26	Steelhead Trout (SC-ESU)
05N32W: S27-34	Steelhead Trout (SC-ESU), Tidewater Goby
05N32W: S35-36	Steelhead Trout (SC-ESU)
05N33W: S1-25	Steelhead Trout (SC-ESU)
05N33W: S26	Steelhead Trout (SC-ESU), Tidewater Goby
05N33W: S27-31	Steelhead Trout (SC-ESU)
05N33W: S32-33	Steelhead Trout (SC-ESU), Tidewater Goby
05N33W: S34	Steelhead Trout (SC-ESU)
05N33W: S35	Steelhead Trout (SC-ESU), Tidewater Goby
05N33W: S36	Steelhead Trout (SC-ESU)
05N34W: S1-17	Steelhead Trout (SC-ESU)
05N34W: S18	Steelhead Trout (SC-ESU), Tidewater Goby
05N34W: S19-34	Steelhead Trout (SC-ESU)
05N34W: S35	Steelhead Trout (SC-ESU), Tidewater Goby
05N34W: S36	Steelhead Trout (SC-ESU)
05N35W: S1-5,9-12	Steelhead Trout (SC-ESU)
05N35W: S13	Steelhead Trout (SC-ESU), Tidewater Goby
05N35W: S14	Steelhead Trout (SC-ESU)
05N35W: S24	Steelhead Trout (SC-ESU), Tidewater Goby
05N35W: S25	Steelhead Trout (SC-ESU)
06N24W: S8,32	Steelhead Trout (SC-ESU)
06N25W: S12-13,24-25,35-36	Steelhead Trout (SC-ESU)
06N26W: S21-22	Least Bell's Vireo
06N26W: S27-28	Arroyo Toad, Least Bell's Vireo
06N26W: S33-34	Arroyo Toad
06N27W: S36	Least Bell's Vireo
06N28W: S33-35	Least Bell's Vireo
06N29W: S19,30-31	Southern Steelhead, Steelhead Trout (SC-ESU)
06N29W: S4-8,18	Steelhead Trout (SC-ESU)
06N30W: S1-13	Steelhead Trout (SC-ESU)
06N30W: S14-16	Southern Steelhead, Steelhead Trout (SC-ESU)
06N30W: S17-18	Steelhead Trout (SC-ESU)
06N30W: S19-25	Southern Steelhead, Steelhead Trout (SC-ESU)

Section List - Santa Barbara County

Sections	Species
06N30W: S26-28	Steelhead Trout (SC-ESU)
06N30W: S29-30	Southern Steelhead, Steelhead Trout (SC-ESU)
06N30W: S31-35	Steelhead Trout (SC-ESU)
06N30W: S36	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S1-6	Steelhead Trout (SC-ESU)
06N31W: S17-18	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S19	Steelhead Trout (SC-ESU)
06N31W: S20-24	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S25-26	Steelhead Trout (SC-ESU)
06N31W: S27-28	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S29-32	Steelhead Trout (SC-ESU)
06N31W: S33-34	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S35-36	Steelhead Trout (SC-ESU)
06N31W: S7	Southern Steelhead, Steelhead Trout (SC-ESU)
06N31W: S8-16	Steelhead Trout (SC-ESU)
06N32W: S1-6	Steelhead Trout (SC-ESU)
06N32W: S13-15	Steelhead Trout (SC-ESU)
06N32W: S16-17	Southern Steelhead, Steelhead Trout (SC-ESU)
06N32W: S18-36	Steelhead Trout (SC-ESU)
06N32W: S7-12	Southern Steelhead, Steelhead Trout (SC-ESU)
06N33W: S1-4	Steelhead Trout (SC-ESU)
06N33W: S14-18	Steelhead Trout (SC-ESU)
06N33W: S19-20	Southern Steelhead, Steelhead Trout (SC-ESU)
06N33W: S21-36	Steelhead Trout (SC-ESU)
06N33W: S5-13	Southern Steelhead, Steelhead Trout (SC-ESU)
06N34W: S1	Southern Steelhead, Steelhead Trout (SC-ESU)
06N34W: S11-14	Southern Steelhead, Steelhead Trout (SC-ESU)
06N34W: S15-23	Steelhead Trout (SC-ESU)
06N34W: S2-10	Steelhead Trout (SC-ESU)
06N34W: S24-25	Southern Steelhead, Steelhead Trout (SC-ESU)
06N34W: S26-35	Steelhead Trout (SC-ESU)
06N34W: S36	Southern Steelhead, Steelhead Trout (SC-ESU)
06N35W: S1-13	Steelhead Trout (SC-ESU)
06N35W: S14-18	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
06N35W: S19	Steelhead Trout (SC-ESU)
06N35W: S20-21	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
06N35W: S22	Steelhead Trout (SC-ESU)
06N35W: S23	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback

Section List - Santa Barbara County

Sections	Species
06N35W: S24-36	Steelhead Trout (SC-ESU)
06N36W: S1-2,11-12	Steelhead Trout (SC-ESU)
06N36W: S13	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
06N36W: S14,23-27,35-36	Steelhead Trout (SC-ESU)
07N26W: S4-9,17-18	Steelhead Trout (SC-ESU)
07N27W: S1-6,11-12	Steelhead Trout (SC-ESU)
07N28W: S1-6,8-10	Steelhead Trout (SC-ESU)
07N29W: S1,3-10,15-22,27-34	Steelhead Trout (SC-ESU)
07N30W: S1-36	Steelhead Trout (SC-ESU)
07N31W: S1-36	Steelhead Trout (SC-ESU)
07N32W: S1-36	Steelhead Trout (SC-ESU)
07N33W: S1-35	Steelhead Trout (SC-ESU)
07N33W: S36	California Red-legged Frog, Steelhead Trout (SC-ESU)
07N34W: S1-18	Steelhead Trout (SC-ESU)
07N34W: S19-22	Southern Steelhead, Steelhead Trout (SC-ESU)
07N34W: S23-25	Steelhead Trout (SC-ESU)
07N34W: S26-27	Southern Steelhead, Steelhead Trout (SC-ESU)
07N34W: S28	Steelhead Trout (SC-ESU)
07N34W: S29	Southern Steelhead, Steelhead Trout (SC-ESU)
07N34W: S30-33	Steelhead Trout (SC-ESU)
07N34W: S34-36	Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S1-6	Steelhead Trout (SC-ESU)
07N35W: S13-14	Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S15	La Graciosa Thistle, Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S16	Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S17	California Least Tern, Southern Steelhead, Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
07N35W: S18	California Least Tern, Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
07N35W: S19-20	Steelhead Trout (SC-ESU), Western Snowy Plover
07N35W: S21-23	La Graciosa Thistle, Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S24	Southern Steelhead, Steelhead Trout (SC-ESU)
07N35W: S25	Steelhead Trout (SC-ESU)
07N35W: S26-28	La Graciosa Thistle, Steelhead Trout (SC-ESU)
07N35W: S29-36	Steelhead Trout (SC-ESU)
07N35W: S7-8	Steelhead Trout (SC-ESU), Western Snowy Plover
07N35W: S9-12	Steelhead Trout (SC-ESU)
07N36W: S24-25,36	Steelhead Trout (SC-ESU)
08N24W: S5-6	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox

Section List - Santa Barbara County

Sections	Species
08N24W: S7-8	Blunt-nosed Leopard Lizard
08N25W: S1	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
08N25W: S12	Blunt-nosed Leopard Lizard
08N26W: S6-9,14-23,25-36	Steelhead Trout (SC-ESU)
08N27W: S1-36	Steelhead Trout (SC-ESU)
08N28W: S1-4,9-16,21-28,33-36	Steelhead Trout (SC-ESU)
08N29W: S1-36	Steelhead Trout (SC-ESU)
08N30W: S1-7	Steelhead Trout (SC-ESU)
08N30W: S11-14	Steelhead Trout (SC-ESU)
08N30W: S15-17	Least Bell's Vireo, Steelhead Trout (SC-ESU)
08N30W: S18-20	Steelhead Trout (SC-ESU)
08N30W: S21	Least Bell's Vireo, Steelhead Trout (SC-ESU)
08N30W: S22-36	Steelhead Trout (SC-ESU)
08N30W: S8-10	Least Bell's Vireo, Steelhead Trout (SC-ESU)
08N31W: S1-36	Steelhead Trout (SC-ESU)
08N32W: S1-36	Steelhead Trout (SC-ESU)
08N33W: S1-8	Steelhead Trout (SC-ESU)
08N33W: S11-36	Steelhead Trout (SC-ESU)
08N33W: S9-10	La Graciosa Thistle, Steelhead Trout (SC-ESU)
08N34W: S1-15	Steelhead Trout (SC-ESU)
08N34W: S16-18	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
08N34W: S19-36	Steelhead Trout (SC-ESU)
08N35W: S1-4	Steelhead Trout (SC-ESU)
08N35W: S10-16	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
08N35W: S17-18	Steelhead Trout (SC-ESU), Tidewater Goby, Unarmored Threespine Stickleback
08N35W: S19-36	Steelhead Trout (SC-ESU)
08N35W: S5	California Red-legged Frog, Steelhead Trout (SC-ESU)
08N35W: S6	Steelhead Trout (SC-ESU)
08N35W: S7-8	Steelhead Trout (SC-ESU), Tidewater Goby, Unarmored Threespine Stickleback
08N35W: S9	Steelhead Trout (SC-ESU)
08N36W: S1	Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
08N36W: S12	California Least Tern, Steelhead Trout (SC-ESU), Tidewater Goby, Unarmored Threespine Stickleback, Western Snowy Plover
08N36W: S13-14	Steelhead Trout (SC-ESU), Western Snowy Plover
08N36W: S23-24	California Least Tern, Steelhead Trout (SC-ESU), Western Snowy Plover
08N36W: S25,36	Steelhead Trout (SC-ESU)
09N24W: S17	California Jewel-flower, San Joaquin Kit Fox

Section List - Santa Barbara County

Sections	Species
09N24W: S18	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox, San Joaquin Woollythreads
09N24W: S19	Blunt-nosed Leopard Lizard, California Jewel-flower, San Joaquin Kit Fox
09N24W: S20,28-29	San Joaquin Kit Fox
09N24W: S30	California Jewel-flower, San Joaquin Kit Fox
09N24W: S31-33	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
09N24W: S4-5	Blunt-nosed Leopard Lizard
09N24W: S6	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
09N24W: S7	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox, San Joaquin Woollythreads
09N24W: S8-9,16	Blunt-nosed Leopard Lizard
09N25W: S1	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox, San Joaquin Woollythreads
09N25W: S10	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
09N25W: S11-14	Blunt-nosed Leopard Lizard, California Jewel-flower, San Joaquin Kit Fox, San Joaquin Woollythreads
09N25W: S15,23	Blunt-nosed Leopard Lizard
09N25W: S2	Blunt-nosed Leopard Lizard, California Jewel-flower, San Joaquin Kit Fox, San Joaquin Woollythreads
09N25W: S24	Blunt-nosed Leopard Lizard, California Jewel-flower, San Joaquin Kit Fox
09N25W: S27	California Jewel-flower
09N25W: S3-4	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
09N25W: S5-9	San Joaquin Kit Fox
09N26W: S1-5	San Joaquin Kit Fox
09N26W: S31	Steelhead Trout (SC-ESU)
09N27W: S6-7,16-22,25-36	Steelhead Trout (SC-ESU)
09N28W: S1-36	Steelhead Trout (SC-ESU)
09N29W: S1-4,9-16,21-28,33-36	Steelhead Trout (SC-ESU)
09N30W: S1-36	Steelhead Trout (SC-ESU)
09N31W: S1-18	Steelhead Trout (SC-ESU)
09N31W: S19	Arroyo Toad, Steelhead Trout (SC-ESU)
09N31W: S20-36	Steelhead Trout (SC-ESU)
09N32W: S1-8	Steelhead Trout (SC-ESU)
09N32W: S11-13	Steelhead Trout (SC-ESU)
09N32W: S14-16	Least Bell's Vireo, Steelhead Trout (SC-ESU)
09N32W: S17-20	Steelhead Trout (SC-ESU)
09N32W: S21-23	Least Bell's Vireo, Steelhead Trout (SC-ESU)
09N32W: S24-36	Steelhead Trout (SC-ESU)
09N32W: S9-10	Least Bell's Vireo, Steelhead Trout (SC-ESU)
09N33W: S1	Arroyo Toad, Steelhead Trout (SC-ESU)
09N33W: S2-36	Steelhead Trout (SC-ESU)
09N34W: S1-36	Steelhead Trout (SC-ESU)

Section List - Santa Barbara County

Sections	Species
09N35W: S1-18	Steelhead Trout (SC-ESU)
09N35W: S19	Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
09N35W: S20-21	Steelhead Trout (SC-ESU), Tidewater Goby
09N35W: S22-26	Steelhead Trout (SC-ESU)
09N35W: S27	Steelhead Trout (SC-ESU), Unarmored Threespine Stickleback
09N35W: S28-29	Steelhead Trout (SC-ESU), Tidewater Goby
09N35W: S30-31	Steelhead Trout (SC-ESU), Western Snowy Plover
09N35W: S32	California Red-legged Frog, Steelhead Trout (SC-ESU)
09N35W: S33-36	Steelhead Trout (SC-ESU)
09N36W: S1-2,11-13	Steelhead Trout (SC-ESU)
09N36W: S36	Steelhead Trout (SC-ESU), Western Snowy Plover
10N25W: S19	Giant Kangaroo Rat, San Joaquin Kit Fox
10N25W: S20	San Joaquin Kit Fox
10N25W: S28	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
10N25W: S29-32	San Joaquin Kit Fox
10N25W: S33-34	Blunt-nosed Leopard Lizard, San Joaquin Kit Fox
10N26W: S13-14	Giant Kangaroo Rat, San Joaquin Kit Fox
10N26W: S15-22	San Joaquin Kit Fox
10N26W: S23-24	Giant Kangaroo Rat, San Joaquin Kit Fox
10N26W: S25-36	San Joaquin Kit Fox
10N26W: S4-10	San Joaquin Kit Fox
10N27W: S1	San Joaquin Kit Fox
10N27W: S12-16,22-26,36	San Joaquin Kit Fox
10N27W: S2-4	Giant Kangaroo Rat, San Joaquin Kit Fox
10N27W: S5-8	San Joaquin Kit Fox
10N27W: S9-11	Giant Kangaroo Rat, San Joaquin Kit Fox
10N28W: S1-3	San Joaquin Kit Fox
10N28W: S29-36	Steelhead Trout (SC-ESU)
10N29W:	Steelhead Trout (SC-ESU)
S9-11,14-16,21-28,33-36	
10N30W: S1-36	Steelhead Trout (SC-ESU)
10N31W: S1-26	Steelhead Trout (SC-ESU)
10N31W: S27-28	California Red-legged Frog, Steelhead Trout (SC-ESU)
10N31W: S29-32	Steelhead Trout (SC-ESU)
10N31W: S33-34	California Red-legged Frog, Steelhead Trout (SC-ESU)
10N31W: S35-36	Steelhead Trout (SC-ESU)
10N32W: S1-36	Steelhead Trout (SC-ESU)
10N33W:	Steelhead Trout (SC-ESU)
S1-2,7-8,12-13,16-23,25-36	

Section List - Santa Barbara County

Sections	Species
10N34W: S1-28	Steelhead Trout (SC-ESU)
10N34W: S29-31	California Red-legged Frog, Steelhead Trout (SC-ESU)
10N34W: S32-36	Steelhead Trout (SC-ESU)
10N35W: S1-5	Steelhead Trout (SC-ESU)
10N35W: S6-7	La Graciosa Thistle, Steelhead Trout (SC-ESU)
10N35W: S8-36	Steelhead Trout (SC-ESU)
10N36W: S10	California Least Tern, Steelhead Trout (SC-ESU), Western Snowy Plover
10N36W: S11	California Least Tern, La Graciosa Thistle, Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
10N36W: S12	La Graciosa Thistle, Steelhead Trout (SC-ESU)
10N36W: S13	Steelhead Trout (SC-ESU)
10N36W: S14	Steelhead Trout (SC-ESU), Western Snowy Plover
10N36W: S15,22	California Least Tern, Steelhead Trout (SC-ESU), Western Snowy Plover
10N36W: S2	California Least Tern, La Graciosa Thistle, Steelhead Trout (SC-ESU), Tidewater Goby, Western Snowy Plover
10N36W: S23	Steelhead Trout (SC-ESU), Western Snowy Plover
10N36W: S24-27,33-36	Steelhead Trout (SC-ESU)
11N27W: S31-32	San Joaquin Kit Fox
11N28W: S16	Giant Kangaroo Rat, San Joaquin Kit Fox, San Joaquin Woollythreads
11N28W: S17	Giant Kangaroo Rat, San Joaquin Kit Fox
11N28W: S18-19	San Joaquin Kit Fox
11N28W: S20-22	Giant Kangaroo Rat, San Joaquin Kit Fox
11N28W: S26	San Joaquin Kit Fox
11N28W: S27-29	Giant Kangaroo Rat, San Joaquin Kit Fox
11N28W: S30-36	San Joaquin Kit Fox
11N29W: S12-13	San Joaquin Kit Fox
11N29W: S14	Giant Kangaroo Rat, San Joaquin Kit Fox
11N29W: S15-16	Giant Kangaroo Rat
11N29W: S24	San Joaquin Kit Fox
11N29W: S9-11	Giant Kangaroo Rat, San Joaquin Kit Fox
11N30W: S1	San Joaquin Kit Fox
11N30W: S9-10,15-17,19-23,25-36	Steelhead Trout (SC-ESU)
11N31W: S25,27-28,33-36	Steelhead Trout (SC-ESU)
11N32W: S26-28,31-36	Steelhead Trout (SC-ESU)
11N33W: S35-36	Steelhead Trout (SC-ESU)
11N34W: S31	Steelhead Trout (SC-ESU)
11N34W: S32	California Red-legged Frog, Steelhead Trout (SC-ESU)
11N34W: S33-35	Steelhead Trout (SC-ESU)

Section List - Santa Barbara County

Sections	Species
11N35W: S35-36	Steelhead Trout (SC-ESU)
12N30W: S26-29,34-36	San Joaquin Kit Fox
32S18E: S32-33	San Joaquin Kit Fox

California Tiger Salamander

in Santa Barbara County

March, 2000



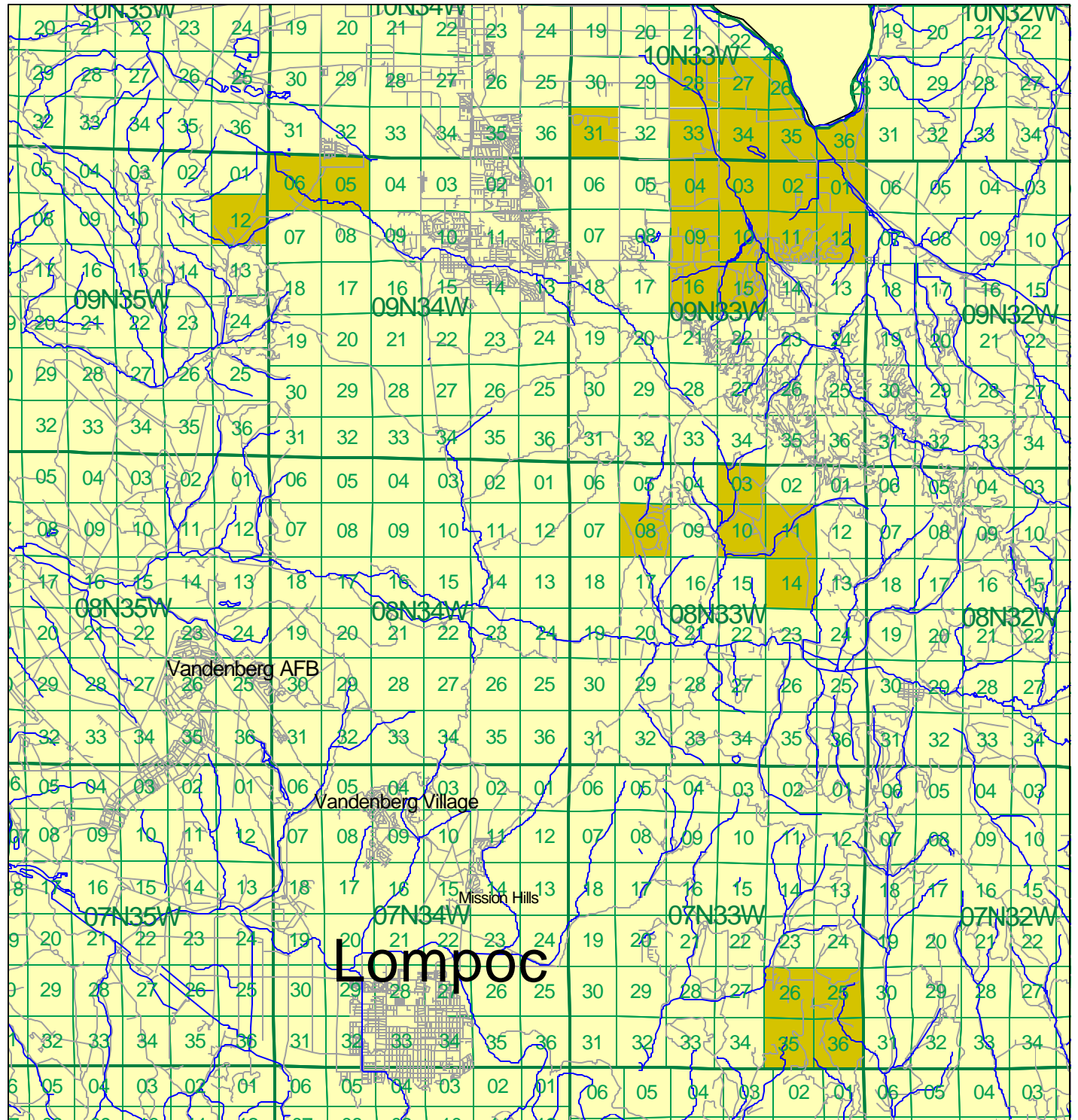
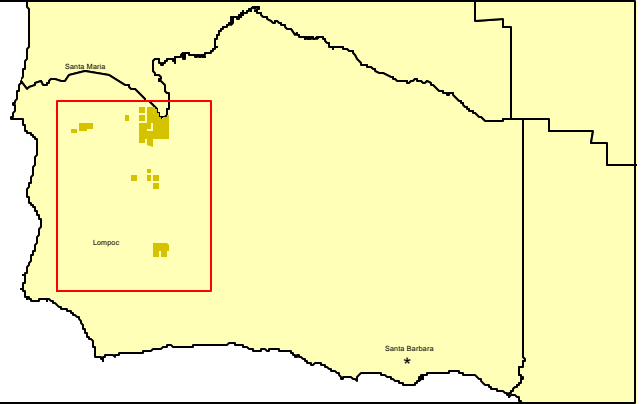
California Tiger Salamander Habitat



Sections

— Roads

— Water Features





Adult California Tiger Salamander

Photo by John Brode – CDFG



Juvenile

Photo by John Brode - CDFG

Santa Barbara County List of Occupied Sections:

07N33W: 25, 26, 35, 36
 08N33W: 3, 8, 10, 11, 14
 09N33W: 1-4, 9-12, 15, 16
 09N34W: 5, 6
 09N35W: 12
 10N33W: 26-28, 31, 33-36

Appearance: The California Tiger Salamander is a large, stocky, terrestrial amphibian with a broad rounded snout. Adult males average 8 inches in length, adult females average just under 7 inches in length. The small eyes have black irises and protrude from the head. California Tiger Salamanders have white or pale yellow spots or bars on a black background on the back and sides. The belly is almost completely white or pale yellow to variegated white or pale yellow and black.

Range: California Tiger Salamanders in Santa Barbara County are separated from other populations of tiger salamanders by the Coast Ranges and the Carrizo Plain. The Santa Barbara population is known only from the Santa Maria, Los Alamos and Santa Rita Valleys in western Santa Barbara County (see map on reverse).

Habitat: California Tiger Salamanders occur at low elevation, below 1000 feet, in vernal pools and seasonal ponds and associated coastal scrub, grassland and oak savannah plant communities.

Life History: Sub-adult and adult California Tiger Salamanders spend most of their lives in abandoned small mammal burrows such as gopher and ground squirrel burrows. They become inactive in summer months (estivate). They emerge in the fall on nights during rains and nights of high relative humidity and migrate toward breeding ponds. Adults may migrate up to 1.2 miles from summering to breeding sites, depending on climatic conditions, suitable cover and availability of burrows. Migration is concentrated during only a few rainy nights early in winter. Males remain in breeding ponds 6 to 8 weeks, females stay only 1 to 2 weeks. Most salamanders return to the same ponds from which they emerged. Eggs are laid singly or in small groups attached to vegetation or other objects near the edges of the pond. Adults return to upland burrows shortly after breeding. Eggs hatch in 10 to 14 days with newly hatched larvae approximately one-half inch in length. Larvae feed on small crustaceans, mosquito larvae and algae for the first six weeks and then take larger prey such as small tadpoles. The salamanders metamorphose (change form) into the terrestrial stage two to three months after eggs are laid. The longer the salamanders remain in the pond, the larger they are at emergence and the better their chances of survival. Juveniles leave the breeding ponds before they dry completely. Larger ponds provide suitable habitat longer and increase the survival rate of emerging salamanders. Typically fewer than 30 salamanders successfully emerge per each breeding female and fewer than 5% of these survive to reproduce.

Source: USFWS in Federal Register (65 FR 3096, January 19, 2000)

Hazard Class:

AQ, FS